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DOMINICA.

ANNUAL REPORT

OF THE

Department of Agriculture

FOR THE YEAR

1943.

Printed at the BULLETIN OFFICE, Roseau, Dominica, B.W.I.

Annual Report of the Department of Agriculture Dominica, 1943.

PART I.
AGRICULTURE IN THE COLONY.

(For reasons of economy this report has been abridged in so far as it has been possible to do so without imparing the record of the year's activities. Furthermore in accordance with instructions from the Secretary of State, any information however apparently trivial, in connection with production levels, crop forecasts, imports and exports—of certain commodities—has been omitted.

More detailed information regarding any particular aspect of the work of the Department will be supplied to any interested person.)

STAFF.

Mr. L. L. de VERTEUIL was appointed Agricultural Superintendent on 31st January, 1943. This officer is on secondment from the Gold Coast Government for a period of five years. Mr. D. A. PERRYMAN was appointed Agricultural Assistant as from 1st March, 1943. Seven additional Agricultural Instructors were appointed on April 1st, 1943. and Mr. C.A. SEIGNORET was appointed to act 2nd Class Clerk on 1st December, 1943. Mr. C. A. F. CORRIETTE served as 3rd Class Clerk from 27th April, 1943 and after his resignation was replaced by Mr. P. S. ROCK.

POLICY.

The Agricultural Scheme (D 53) under the Colonial & Development Welfare Act, referred to in the last two annual reports was inaugurated during the year. The estimated total expenditure on this scheme to be spread over 5 years is £25,000. Among the main objects of the Scheme was to overhaul the work of the Department of Agriculture, develop Investigational and Demonstration Centres and train additional Agricultural Instructors for work amongst small growers. This policy has been carried out in so far as war time conditions have allowed.

The Government Marketing Depot continued to operate on a war time footing.

WEATHER CONDITIONS.

(a) *Rainfall.*—71.65 inches was registered at the Botanic Gardens as compared with twenty years average of 75.84 inches. Interesting features of the monthly distribution were the relatively high precipitation in March, and low falls in November and December.

(b) *Barometer.*—The highest reading recorded was 30.17 on January

29.83
29th, the lowest 28.83 on August 20th. A hurricane threatened on August 20th, but fortunately did not materialise.

(c) *Temperature.*—The highest maximum temperature recorded was 92° F. on 27th September and the lowest minimum 61° F. on February 8th.

PROGRESS OF MAIN EXPORT CROPS.

Satisfactory production was maintained in the main export crops. The monetary value of exports being about 7% less than for the previous year. The price of vanilla was again high, green beans averaging 4/6 per lb. during the year. This crop was responsible for 27% of the total value of exports, second only to limes.

The banana industry continued to be efficiently managed by the Dominica Banana Association. The subsidy under Colonial Development and Welfare was again provided during the period under review. This enabled the industry to be maintained, and aided in solving the food problem. The Association purchased 46,886 bunches during the year. The acreage under this crop has shown a progressive decline in the last two years owing mainly to inroads of Panama Disease and to some extent the high price ruling for for Vanillas.

PESTS AND DISEASES.

Citrus.—Weather conditions were favourable to the incidence of withertip of Limes (*Glœosporum limetticolum*). No severe outbreaks of citrus weevil (*Diaprepes spp.*) or fruit piercing moths were reported.

Vanilla. Severe losses were sustained by some growers, due to an unidentified disease, which causes undeveloped flower buds and immature beans to drop. Diseased material was examined by the Mycologist, Imperial College of Tropical Agriculture, but no causative organism was discovered. Symptoms closely resemble what is described from Puerto Rico as a 'Blast' disease. A close watch is being kept on the incidence and occurrence.

Bananas.—Panama Diseases (*Fusarium cubense*). The average monthly disease incidence for all districts was 2.32% infected as compared with 1.49% for the previous year.

Cercospora Leaf Spot (*Cercospora musæ*) continues to spread.

PART II.
WORK OF THE DEPARTMENT.

PUBLIC GROUNDS.

Grounds at the Library, Memorial Park, Morne Bruce and Military Cemetery were maintained in good order.

BOTANIC GARDENS.

(a) *Decorative Section.*—This was maintained in attractive condition and a few minor improvements effected. Seed exchange and propagation of decoratives were on a reduced scale.

(b) *Economic Section.*—Four plots containing plant material no longer

serving a useful purpose, were cut out and the space utilized for introduced and local food crop varieties, and fodder grasses.

Crops grown in observation and multiplication plots comprise the following :—

(i) Sweet Potatoes : V 52, Black Rock, Caroline Lee, B 44, B 5, B 62, Three months vine, B 64, B 31 and B 29. Of these V 52 and Caroline Lee appear to be the most promising. No definite information can be given, however, until tested in properly laid out trials.

(ii) Yams : Barbados Lisbon, Statia, Potato or Silk yam, Bottle-neck Lisbon, Coconut Lisbon, Red Lisbon and Horn. The first three varieties have consistently yielded good crops for the past three years. The others were tried for the first time.

(iii) Adlay (*Coix Lachryma*--Jobi): Several plots of this crop were successfully grown. Results so far are promising, provided there is adequate moisture during the growing stage, and the crop matures during a dry spell.

(iv) Hill Rice : This crop has shown promise so far, and has distinct possibilities in the higher rainfall areas Birds, can, at times be a serious pest.

(v) Soya Bean : The following edible varieties were tried, viz. Trinidad and Palmetto from Jamaica, Funk Delicious from U.S.A. and one unnamed from Puerto Rico.

The Trinidad variety was outstanding, and has been retained for further trial.

(vi) Miscellaneous Beans : Stringless beans--Bush ; Stringless beans --Climbing, and Lima Beans. In all fifteen varieties were planted. The following varieties have been selected for further testing. Antigua Six Weeks Bush Bean (Antigua), Kentucky Wonder (U.S.A.), Stringless Black Valentine (U.S A.), Venezuelan Black Bean (British Guiana) and Best Pole Lima (U.S.A.)

(vii) Sweet Corn : Variety U.S.D.A. 34 obtained from Puerto Rico, was successfully grown though it shows high susceptibility to the Army Worm.

(viii) Egyptian Wheat, Kaffir Corn and Sorghum, gave disappointing results.

Fodder Grasses. - Plot 19 which formerly contained old cocoa was contoured, dry wall terraced, and planted with three varieties of fodder grasses, viz : Guatemala and two strains of Elephant grass. These are cut on a de-

finite rotation and fed to the stud animals.

European Vegetables.—Tomatoes, Cabbages, Cauliflower, String beans and Lettuce were grown in demonstration plots.

Cocoa.—Data concerning yield and self-compatibility were recorded for selected trees The Manager of Picard Estate in co-operation with the Department is also keeping individual tree records on 600 seedling progenies of Trinidad cocoa. It is hoped to be able to select among them desirable types for propagation.

A cocoa propagator was constructed at the Botanic Gardens, and preliminary rooting trials using different types of sand were carried out.

Derris. -Small trial plots have been established. Clonal material of two varieties was obtained from Trinidad, viz. Amani and Changi No 3. One estate is making an extensive trial planting, using planting material of high rotenone yielding strains obtained from Puerto Rico.

EXPERIMENT STATION.

(a) *Limes.*—The crop amounted to 1,453 barrels as compared with 1,008 barrels for the previous year. Sale was by quarterly tender. The following prices were received each quarter.

January	to	March	.. 12/6 per barrel.
April	,,	June	.. 12/6 ,, ,,
July	,,	September	.. 9/6 ,, ,,
October	,,	December	.. 9/6 ,, ,,

(b) *Cashew Nuts.*—A plot of 4 acres containing coconuts, which no longer gave an economic yield was cut out and replaced by Cashew Nuts, a crop more suited to the particular area. The field was laid out on the contour and serves as a demonstration to cultivators.

PLANT DISTRIBUTION.

(a) BUDDED OR GRAFTED PLANTS.

Washington Navel Orange	1,635 plants
Other Oranges..	451 ,,
Grapefruit	28 ,,
West Indian Limes	7,326 ,,
Other Citrus	45 ,,
Avocado Pears	39 ,,
Mangoes	21 ,,
TOTAL	9,545 plants

OTHER ECONOMIC PLANTS.

Sour Orange Stocks	500 plants
Wild Grapefruit Stocks	121 ,,
Cocoa	1,331 ,,
Coffee	2,731 ,,

Nutmegs	391 ,,
Miscellaneous	1,445 ,,
Sweet Potato cuttings	6,358 ,,
Fodder Grass cuttings	4,695 ,,
European vegetable seed ..	50 lbs.

(b) *Sugar Cane Nurseries.*—Nurseries were established at five estates in co-operation with the owners, for supplying improved varieties to growers. The following varieties were sown viz. BA 11569, BH 1012, B 37161, B 3439, B 35245, B 35187, B 34104, B 38233, B 37193.

PLANT INTRODUCTIONS.

Adlay	11 lbs.	Ag. C. of A., Trinidad.
Kaffir Corn ..	1 pkt.	do.
Hill Rice	15 lbs. (6 varieties)	do.
Swamp Rice ..		do.
Soya Bean ..	(2 ,,)	D.A. Jamaica.
do. ..	(1 ,,)	Puerto Rico.
Derris	25 cuttings (2 ,,)	Q.S., Trinidad.
Derris	200 ,, (3 ,,)	Puerto Rico.
Lonchocarpus ..	20 ,,	do.
Tobacco	1 pkt.	Nyasaland.
Sweet Potatoes ..	(3 ,,)	D.A. Barbados.
Yams	(4 ,,)	do.
Bamboo	(3 ,,)	Puerto Rico.
Sweet Corn ..	(1 ,,)	do.
Indian Corn .	(1 ,,)	Ag. C. of A., Trinidad.
Coffea Arabica (Columnaris Var.)		Puerto Rico.
Various Ornamentals	(16 ,,)	Bronx Park, N.Y.

LIVESTOCK.

(a) *Stud Animals.*—One grade Holstein Bull, One Black-headed Persian Ram and two British Alphine goats stood for service. The return of services is set out below.

Animal.	*Number of Services.*
Bull	45
Goat	51
Sheep	52

The demand far exceeded the number of services actually given. Arrangements have been made to increase the number of Stud Animals.

(b) *Rabbits.*—Five bucks and seven does of Flemish Giant breed ($\frac{7}{8}$) were imported from Barbados in May. A rabbitry was built at the Botanic

Gardens to house them. The total number on hand at the end of the year including those at other centres was 78. In addition bucks have been available for service and 152 does were served for the year.

(c) *Poultry.*—It was not possible to obtain any birds outside of Dominica. One pure bred Rhode Island cock and four hens were obtained on loan. Eggs obtained from these were incubated and a small number of chickens raised. A poultry house and range was built and valuable experience gained by the staff in management and feeding.

EXTENSION SERVICE.

(a) *Advisory.*—The island has been organised into seven agricultural districts and the district staff strengthened by the appointment of seven additional District Instructors. The extension work is so organised that the whole department is concerned.

The policy followed has been to make contact with the peasantry in their own surroundings and earn their confidence by talking to them in their own 'Patois.' Visits were made to individual peasant holdings by all members of the staff. Meetings were held in certain districts. In addition, demonstrations of (i) soil conservation (ii) planting of fodder grasses and (iii) stabling of livestock were carried out on selected peasant holdings. Every effort was made to co-operate with the Education and Medical Departments in rural work.

(b) *Investigational and Demonstration Centres.*—It is considered that demonstration is the basis of effective propaganda for improved agricultural methods. Consequently, priority of effort was given to the establishment of district demonstration centres. The programme calls for seven agricultural centres, one to each district, to be constructed in the course of five years.

Sites were acquired in the Marigot and La Plaine districts, for this purpose. By the end of the year nurseries for plant distribution, and demonstration holdings were established at these centres. Satisfactory progress was made with the erection of buildings, and it is anticipated that both centres will be completed early in the coming year.

(c) *Trial plots of Manila Hemp (Musa Textilis).*—Three trial plots were established, in co-operation with planters and peasants.

SOIL CONSERVATION.

The plan of campaign included (a) Propaganda to enlighten opinion on the importance of the problem. (b) Demonstrations at Agricultural Centres of (i) Digging of storm drains and contour trenches and planting of lemon and vetiver grass on the top side. (ii) Planting of permanent crops on the contour. (iii) Strip-cropping, including grass strips. (iv) Dry wall terracing. (c) Demonstrations of one or more of the above on selected peasant holdings.

It must be pointed out, however, that under conditions obtaining in Dominica, any real progress in soil conservation is bound up with the framing and execution of a Forestry policy. Such a policy is at present non-existent. It is considered that early and energetic action on these lines is

clearly indicated, if it is intended to deal with the erosion problem before it becomes sufficiently serious to compel attention.

AGRICULTURAL EDUCATION.

(a) *Pupil Apprentice Course.*—A new and revised syllabul was drawn up for this course. It gives more emphasis to livestock than hitherto. In addition after completing one year at the Botanic Gardens, pupils will be stationed at Demonstration centres for the final year. The number of pupils in attendance was 14 during the year.

(b) *Scheme D 200—Colonial Development and Welfare.*—As a result of applications made under this scheme, the following grants were approved by the Comptroller.

(i) To allow one Instructor to undertake a bee-keeping course under the Bee Instructor of the Trinidad Agricultural Society.

(ii) To cover the cost of sending one man for two months training at the Royal Botanic Gardens, Trinidad, and the Cocoa nursery, Trinidad Department of Agriculture.

(iii) To cover the cost of three months training for two District Instructors in livestock management.

(iv) To cover the cost of the Peasants' Adviser visiting St. Vincent to study extension work and anti-erosion control.

It is hoped that arrangements can be made to allow selected candidates to undergo their training during 1944.

(c) *Grammar School Boys.*—Lectures and demonstrations were given fortnightly by the Assistant Agricultural Officer. In conjunction with the Education Officer, the course of lectures was revised. More emphasis was given to practical work.

(d) *Periodicals.*—The following periodicals are received and circulated among the staff.

The Smallholder and Home Gardening.

The Journal of the Jamaica Agricultural Society.

The Farm Journal of British Guiana.

Proceedings of the Agricultural Society of Trinidad and Tobago.

The Negro Farmer.

PUBLICATIONS.

The following two publications were prepared by Mr. R. G. FENNAH, M.A., A.I.C.T.A., "The Citrus Pests Investigation in the Windward and Leeward Islands, 1937-42."

"The First Report, Food Crop Pests Investigation, Windward and Leeward Islands, April, 1942—April 1943."

LABORATORY.

Return of chemical analysis and tests are set out hereunder.

Product.	*Type of Test.*	*No. of Samples.*
Milk	Analysis	45
Lime Oil	Sp. Gravity ..	5
Lime Juice, Conc..	Citrict acid	6
,, ,, , Raw ..	content ..	11
Bay Oil	Phenol content ..	12

ACKNOWLEDGEMENTS.

I desire to place on record the thanks and appreciation of the staff of the Department towards all those who have assisted and co-operated in carrying out our new Agricultural Policy. The Local Press has been particularly helpful in printing of Agricultural notices and giving publicity to the work of the Department. The thanks of the Department is also extended to planters for their hospitality to visiting officers.

L. L. de VERTEUIL,
Agricultural Superintendent.

APPENDIX. I.

GOVERNMENT MARKETING DEPOT.

STAFF.

In conjunction with his duties the Officer-in-Charge deputised for the Agricultural Superintendent from the 6th to 30th January. Mr. C E. A. RAWLE resigned his acting appointment of Clerk on the 9th September and the vacancy was filled by Miss M. WINSTON on 1st December.

WAR EMERGENCY WORK.

Emergency duties have formed the greater part of the work of the Department, and in addition to those connected with price control, slaughter of livestock, meat rationing the Officer-in-Charge was assigned further duties in connection with (a) guarantee of purchase and marketing of surplus products, (b) supplies to Dominica detachment, South Caribbean Force and Fighting French Forces, (c) subsidy to livestock, (d) advances to butchers, (e) storage and delivery of bulk order goods.

Under the scheme for Marketing of Surplus Products limited consignments of cabbages and plantains were shipped to Barbados and Antigua. In the case of the former these never got beyond the trial stage, the later shipments resulting in total loss. Owing to a shortage, shipments of plantains came to an end. The main difficulty with this business was that supplies were usually brought in at week ends and some time lapsed before shipments could be made by sailing vessel. The reported loss through waste was severe.

FRUIT TRADE.

Prior to the commencement of the main citrus season, the Fruit Trade

Committee forwarded to Government a memorandum dealing with the position of the citrus industry and making proposals for subsidization.

During the year 46 consignments of fruit totalling 1,187 crates, consisting mainly of oranges and grapefruit were shipped to Barbados and Antigua. Three private consignments totalling 184 crates were also packed by the Depot.

Prices obtained for all fruit were very satisfactory but reports received indicate that considerably larger quantities could be disposed of at lower price levels.

VANILLAS.

All sales of vanilla in Roseau were supervised and recorded by the Depot, and the total exported was inspected for quality and weight prior to export.

G. A. WINSTON,
Officer-in-Charge,
Government Marketing Depot.

APPENDIX II.

AGRICULTURAL LEGISLATION.

An Ordinance to amend the Sale of Produce Ordinance, 1941, (No. 12 of 1943.)

Plants Protection (Importations) Amendment (S. R. & O. No. 22 of 1943.).

OFFICIAL
PAID